File #	Original File Name
1	EPA_SS_BALTIMORE_PONCA_SEAS_PM25_METALS_V1.csv

Data Exchange Standard Version	Principal Investigator Name--last first	Principal Investigator Affiliation	File Contents Description--short long	Samplng Interval As Reported in Main Table
NARSTO 2002/05/28 (2.301)	Ondov ; Dr.John	Department of Chemistry and Biochemistry, University of Maryland, College Park, MD 20742	UMCP SEAS_Element Ma ; UMCP SEAS_Element Mass Baltimore Ponca Street Site	30 minute

Samplng Frequency Of Data in Main Table	Quality Control Level	Organization Acronym	Organization Name	Data Usage Acknowledgement	Study Or Network Acronym
Same as sampling interval	2	EPA_PM_SS	EPA Particulate Matter Supersites Program	Baltimore Supersite of the U.S. EPA Particulate Matter Supersites Program	EPA_SS_BALTIMORE

Study Or Network Name	Country Code	State Or Province Code	Principal Investigator Contact Information	Co-investigator Name--last first	Co-investigator Affiliation
EPA_Supersites--Baltimore	US	MD	Dr. John M. Ondov, University of Maryland, Department of Chemistry and Biochemistry, College Park,MD 20742 tel: 301-405-1859; email: jondov@umd.edu	None ; None	None

Name And Affiliation Of Person Who Generated This File	Date Of Last Modification To Data In Main Table	Name And Version Of Software Used To Create This File
Gregory Beachley, University of Maryland	2006/12/13	MS Excel, v2003, sp3

Companion File Name format And Version	Date This File Generated archive Version Number	Table Explanation Of Zero Or Negative Values	Table Explanation Of Reported Detection Limit Values
None ; None	2004/09/19 ; 1	Zero values and negative values are permitted in this file	Average detection limits are reported. Detection limit is variable depending on sample matrix.

Table Explanation Of Reported Uncertainty	Table User Note	Table User Note2
uncertainty reported	Elements determined in PM2.5 sampled with the University of Maryland SEAS (Semi-continuous Elements in Aerosol Sampler) and analyses by graphite-furnace atomic absorption spectroscopy; Kidwell, C.B., Ondov, J. M.(2001); Pancras, J. P., Ondov, J.M., and Zeisler, R., (2005).	Kidwell, C.B., Ondov, J. M. 2001. Development and evaluation of a prototype system for collecting sub-hourly ambient aerosol for chemical analysis. AEROSOL SCIENCE AND TECHNOLOGY 35 (1): 596-601.

Table User Note3	Table User Note4	Table Name	Table Focus
Kidwell CB, Ondov JM. 2004. Elemental analysis of sub-hourly ambient aerosol collections. AEROSOL SCIENCE AND TECHNOLOGY 38 (3): 205-218.	Pancras, J. P., Ondov, J.M., and Zeisler, R. 2005. Multi-element electrothermal AAS determination of 11 marker elements in fine ambient aerosol slurry samples collected with SEAS-II. ANALYTICA CHIMICA ACTA 538 (1-2): 303-312.	PM-2.5_Elements	Surface--fixed

Site Information

Site ID	Name	State Province code	Latitude: decimal degree	Longitude: decimal degree	Sampling height above ground (m)	Ground elevation above sea level (m)
BMSSUSMDBPON	Baltimore Ponca St.	MD	39.28910	-76.55460	5.5	130.0

Site ID	Site land use	Site location setting	Measurement start date	Measurement end date	Co-incident measurements	Study site ID	Lat lon accuracy
BMSSUSMDBPON	Industrial	Urban and center city	2002/02/14	2002/09/23	None	BPON	-999.9

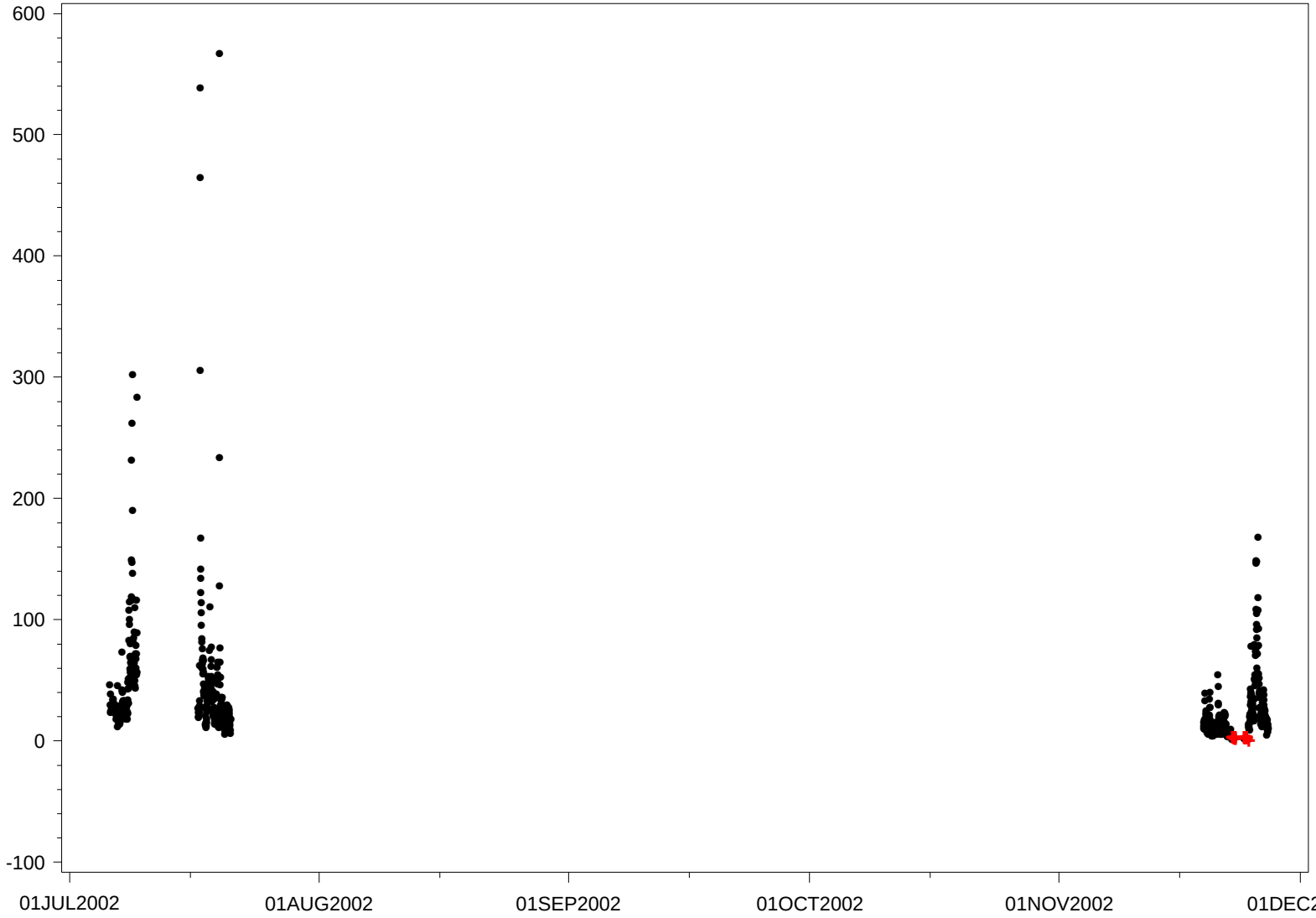
Flag: NARSTO	Description
H1	Historical data that have not been assessed or validated
M1	Missing value because no value is available
M2	Missing value because invalidated by data originator
V0	Valid value
V1	Valid value but comprised wholly or partially of below detection limit data
V2	Valid estimated value
V3	Valid interpolated value
V4	Valid value despite failing to meet some QC or statistical criteria
V5	Valid value but qualified because of possible contamination (e.g., pollution source, laboratory contamination source)
V6	Valid value but qualified due to non-standard sampling conditions (e.g., instrument malfunction, sample handling)
V7	Valid value but set equal to the detection limit (DL) because the measured value was below the DL

NARSTO Time Series Plot

19AUG2007

Site ID: **BMSSUSMDBPON** Variable name: **Aluminum** Units: **ng/m3** Basis: **S/N121** Sampling interval: **30 minute**
Sampling frequency: **Same as sampling interval** CAS ID: **C7429-90-5** Observation type: **Particles** Particle diameter--lower bound (UM): **0.05**
Particle diameter--upper bound (UM): **2.1** Field sampling or measurement principle: **SEAS** Medium: **Slurry** Inlet type: **Impactor**
Laboratory analytical method: **GFAAZ** Sample preparation: **Acidified/sonicated** Blank Correction: **Blank corrected**
Volume standardization: **Ambient temperature and pressure** Sampling Height above ground (m): **5** Instrument name and model number: **SEAS-II**
Measurement principal investigator: **Ondov, Prof. J. M.** Detection Limit: **3.8**

Site Name:**Baltimore Ponca St., Maryland** Latitude:**39.2891 deg.** Longitude:**-76.5546 deg.** Start Date:**2002-02-14** End Date:**2002-09-23**



Statistics
Number of obs: **649**
Number of missing: **2**
Minimum: **-1.04**
25th Percentile: **10.87**
Median: **21.69**
Mean: **34.649**
75th Percentile: **39.83**
Maximum: **567.17**
Stnd Dev.: **50.178**

NARSTO Flags

Flag Symbol	Count
M1:	**2**
V0: ●	**620**
V1: +	**27**

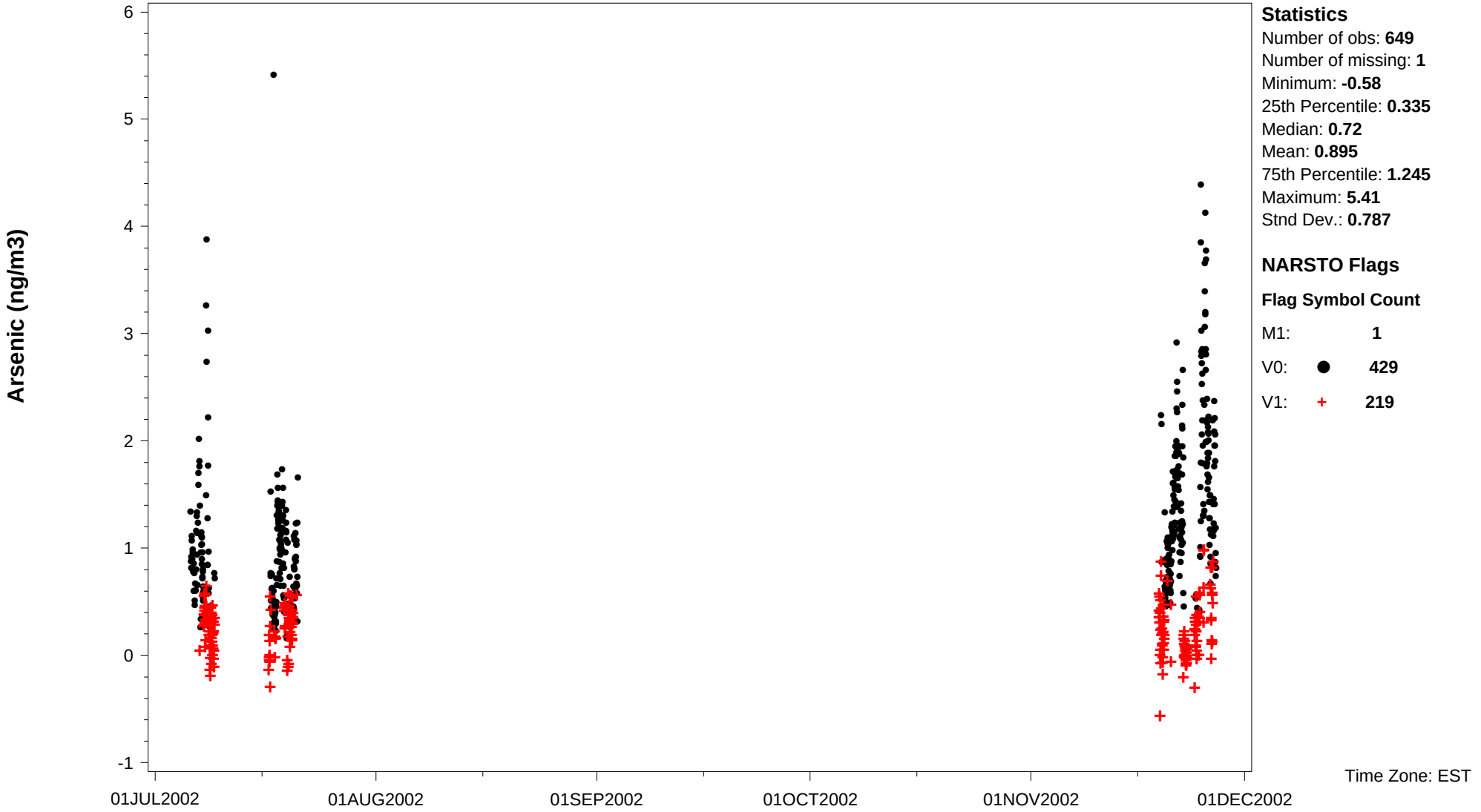
Time Zone: EST

File Name: NARSTO_EPA_SS_BALTIMORE_PONCA_SEAS_PM25_METALS_V1

NARSTO Time Series Plot 19AUG2007

Site ID: **BMSSUSMDBPON** Variable name: **Arsenic** Units: **ng/m3** Basis: **S/N121** Sampling interval: **30 minute**
Sampling frequency: **Same as sampling interval** CAS ID: **C7440-38-2** Observation type: **Particles** Particle diameter--lower bound (UM): **0.05**
Particle diameter--upper bound (UM): **2.1** Field sampling or measurement principle: **SEAS** Medium: **Slurry** Inlet type: **Impactor**
Laboratory analytical method: **GFAAZ** Sample preparation: **Acidified/sonicated** Blank Correction: **Blank corrected**
Volume standardization: **Ambient temperature and pressure** Sampling Height above ground (m): **5** Instrument name and model number: **SEAS-II**
Measurement principal investigator: **Ondov, Prof. J. M.** Detection Limit: **0.03**

Site Name:**Baltimore Ponca St., Maryland** Latitude:**39.2891 deg.** Longitude:**-76.5546 deg.** Start Date:**2002-02-14** End Date:**2002-09-23**



Statistics
Number of obs: **649**
Number of missing: **1**
Minimum: **-0.58**
25th Percentile: **0.335**
Median: **0.72**
Mean: **0.895**
75th Percentile: **1.245**
Maximum: **5.41**
Stnd Dev.: **0.787**

NARSTO Flags

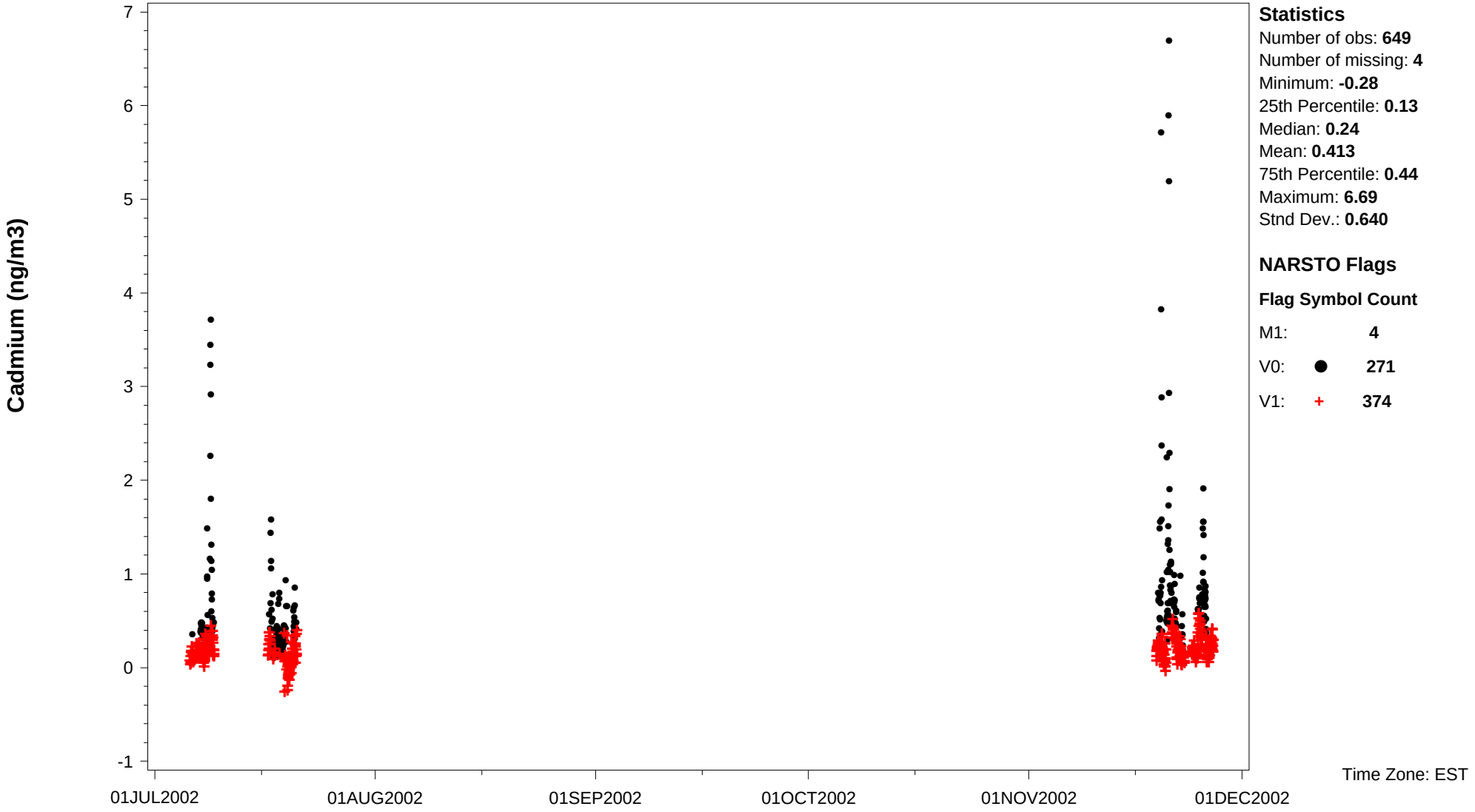
Flag Symbol	Count
M1:	**1**
V0: ●	**429**
V1: +	**219**

NARSTO Time Series Plot

19AUG2007

Site ID: **BMSSUSMDBPON** Variable name: **Cadmium** Units: **ng/m3** Basis: **S/N121** Sampling interval: **30 minute**
Sampling frequency: **Same as sampling interval** CAS ID: **C7440-43-9** Observation type: **Particles** Particle diameter--lower bound (UM): **0.05**
Particle diameter--upper bound (UM): **2.1** Field sampling or measurement principle: **SEAS** Medium: **Slurry** Inlet type: **Impactor**
Laboratory analytical method: **GFAAZ** Sample preparation: **Acidified/sonicated** Blank Correction: **Blank corrected**
Volume standardization: **Ambient temperature and pressure** Sampling Height above ground (m): **5** Instrument name and model number: **SEAS-II**
Measurement principal investigator: **Ondov, Prof. J. M.** Detection Limit: **0.04**

Site Name:**Baltimore Ponca St., Maryland** Latitude:**39.2891 deg.** Longitude:**-76.5546 deg.** Start Date:**2002-02-14** End Date:**2002-09-23**



Statistics
Number of obs: **649**
Number of missing: **4**
Minimum: **-0.28**
25th Percentile: **0.13**
Median: **0.24**
Mean: **0.413**
75th Percentile: **0.44**
Maximum: **6.69**
Stnd Dev.: **0.640**

NARSTO Flags

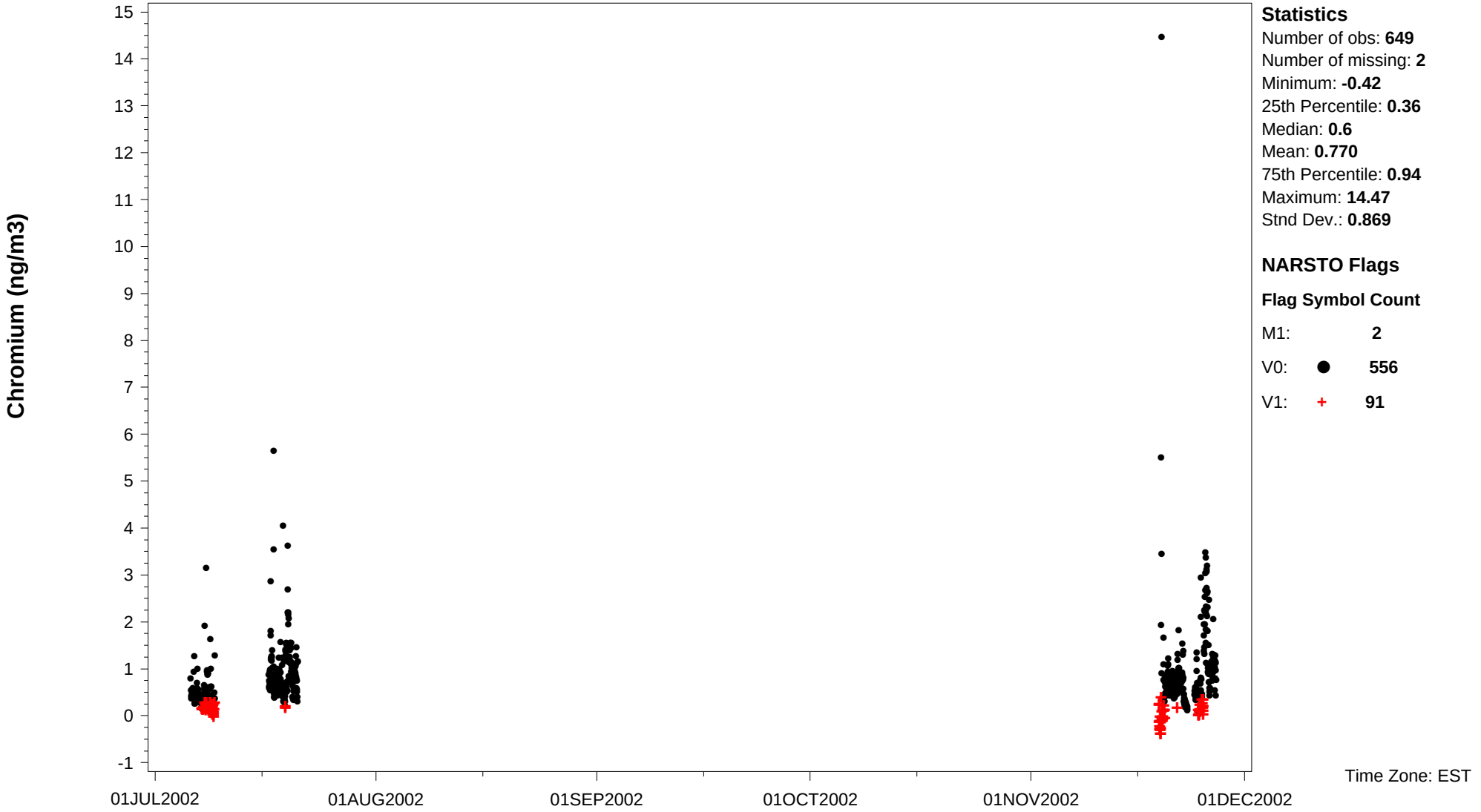
Flag Symbol	Count
M1:	**4**
V0: ●	**271**
V1: +	**374**

NARSTO Time Series Plot

19AUG2007

Site ID: **BMSSUSMDBPON** Variable name: **Chromium** Units: **ng/m3** Basis: **S/N121** Sampling interval: **30 minute**
Sampling frequency: **Same as sampling interval** CAS ID: **C7440-47-3** Observation type: **Particles** Particle diameter--lower bound (UM): **0.05**
Particle diameter--upper bound (UM): **2.1** Field sampling or measurement principle: **SEAS** Medium: **Slurry** Inlet type: **Impactor**
Laboratory analytical method: **GFAAZ** Sample preparation: **Acidified/sonicated** Blank Correction: **Blank corrected**
Volume standardization: **Ambient temperature and pressure** Sampling Height above ground (m): **5** Instrument name and model number: **SEAS-II**
Measurement principal investigator: **Ondov, Prof. J. M.** Detection Limit: **0.05**

Site Name:**Baltimore Ponca St., Maryland** Latitude:**39.2891 deg.** Longitude:**-76.5546 deg.** Start Date:**2002-02-14** End Date:**2002-09-23**



Statistics
Number of obs: **649**
Number of missing: **2**
Minimum: **-0.42**
25th Percentile: **0.36**
Median: **0.6**
Mean: **0.770**
75th Percentile: **0.94**
Maximum: **14.47**
Stnd Dev.: **0.869**

NARSTO Flags

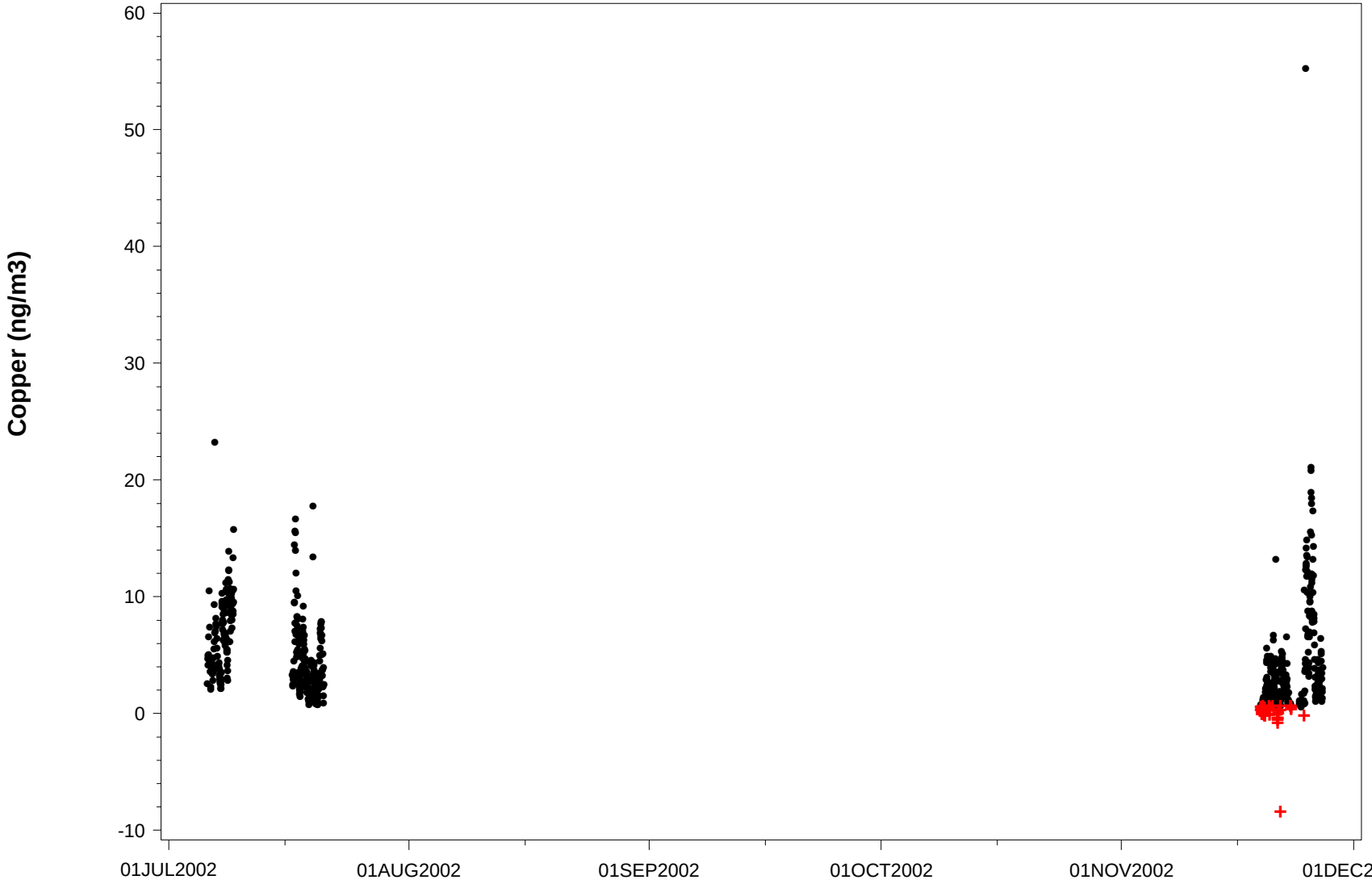
Flag Symbol	Count
M1:	**2**
V0: ●	**556**
V1: +	**91**

NARSTO Time Series Plot

19AUG2007

Site ID: **BMSSUSMDBPON** Variable name: **Copper** Units: **ng/m3** Basis: **S/N121** Sampling interval: **30 minute** Sampling frequency: **Same as sampling interval**
CAS ID: **C7440-50-8** Observation type: **Particles** Particle diameter--lower bound (UM): **0.05** Particle diameter--upper bound (UM): **2.1**
Field sampling or measurement principle: **SEAS** Medium: **Slurry** Inlet type: **Impactor** Laboratory analytical method: **GFAAZ**
Sample preparation: **Acidified/sonicated** Blank Correction: **Blank corrected** Volume standardization: **Ambient temperature and pressure**
Sampling Height above ground (m): **5** Instrument name and model number: **SEAS-II** Measurement principal investigator: **Ondov, Prof. J. M.**
Detection Limit: **1.07**

Site Name:**Baltimore Ponca St., Maryland** Latitude:**39.2891 deg.** Longitude:**-76.5546 deg.** Start Date:**2002-02-14** End Date:**2002-09-23**



Statistics
Number of obs: **649**
Number of missing: **2**
Minimum: **-8.53**
25th Percentile: **1.61**
Median: **3.14**
Mean: **4.416**
75th Percentile: **6.44**
Maximum: **55.25**
Stnd Dev.: **4.377**

NARSTO Flags

Flag Symbol	Count
M1:	**2**
V0: ●	**604**
V1: +	**43**

Time Zone: EST

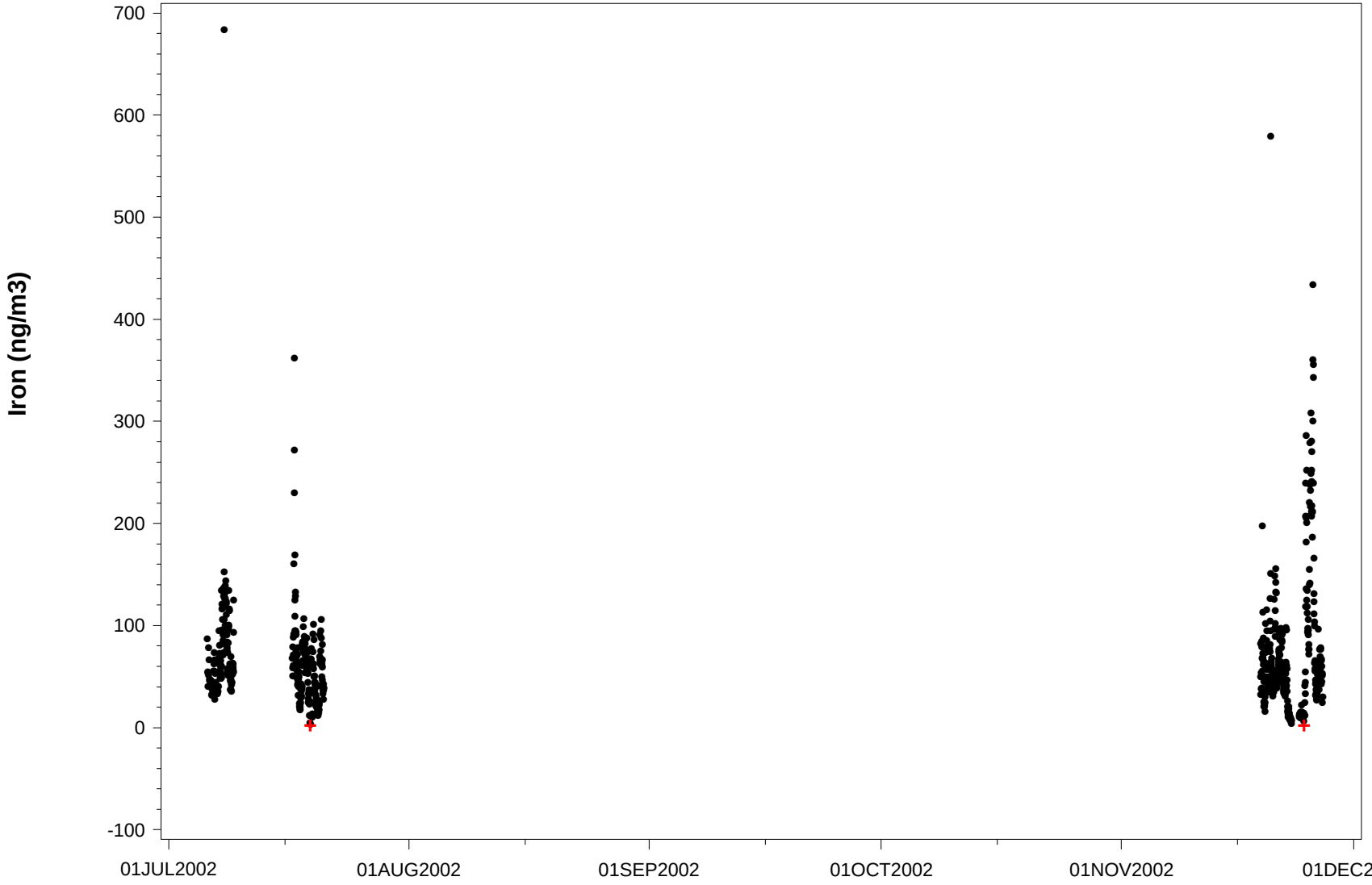
File Name: NARSTO_EPA_SS_BALTIMORE_PONCA_SEAS_PM25_METALS_V1

NARSTO Time Series Plot

19AUG2007

Site ID: **BMSSUSMDBPON** Variable name: **Iron** Units: **ng/m3** Basis: **S/N121** Sampling interval: **30 minute** Sampling frequency: **Same as sampling interval**
CAS ID: **C7439-89-6** Observation type: **Particles** Particle diameter--lower bound (UM): **0.05** Particle diameter--upper bound (UM): **2.1**
Field sampling or measurement principle: **SEAS** Medium: **Slurry** Inlet type: **Impactor** Laboratory analytical method: **GFAAZ**
Sample preparation: **Acidified/sonicated** Blank Correction: **Blank corrected** Volume standardization: **Ambient temperature and pressure**
Sampling Height above ground (m): **5** Instrument name and model number: **SEAS-II** Measurement principal investigator: **Ondov, Prof. J. M.**
Detection Limit: **0.72**

Site Name:**Baltimore Ponca St., Maryland** Latitude:**39.2891 deg.** Longitude:**-76.5546 deg.** Start Date:**2002-02-14** End Date:**2002-09-23**



Statistics
Number of obs: **649**
Number of missing: **2**
Minimum: **-0.03**
25th Percentile: **37.53**
Median: **55.98**
Mean: **71.317**
75th Percentile: **83.29**
Maximum: **683.57**
Stnd Dev.: **64.708**

NARSTO Flags

Flag Symbol	Count
M1:	**2**
V0: ●	**645**
V1: +	**2**

Time Zone: EST

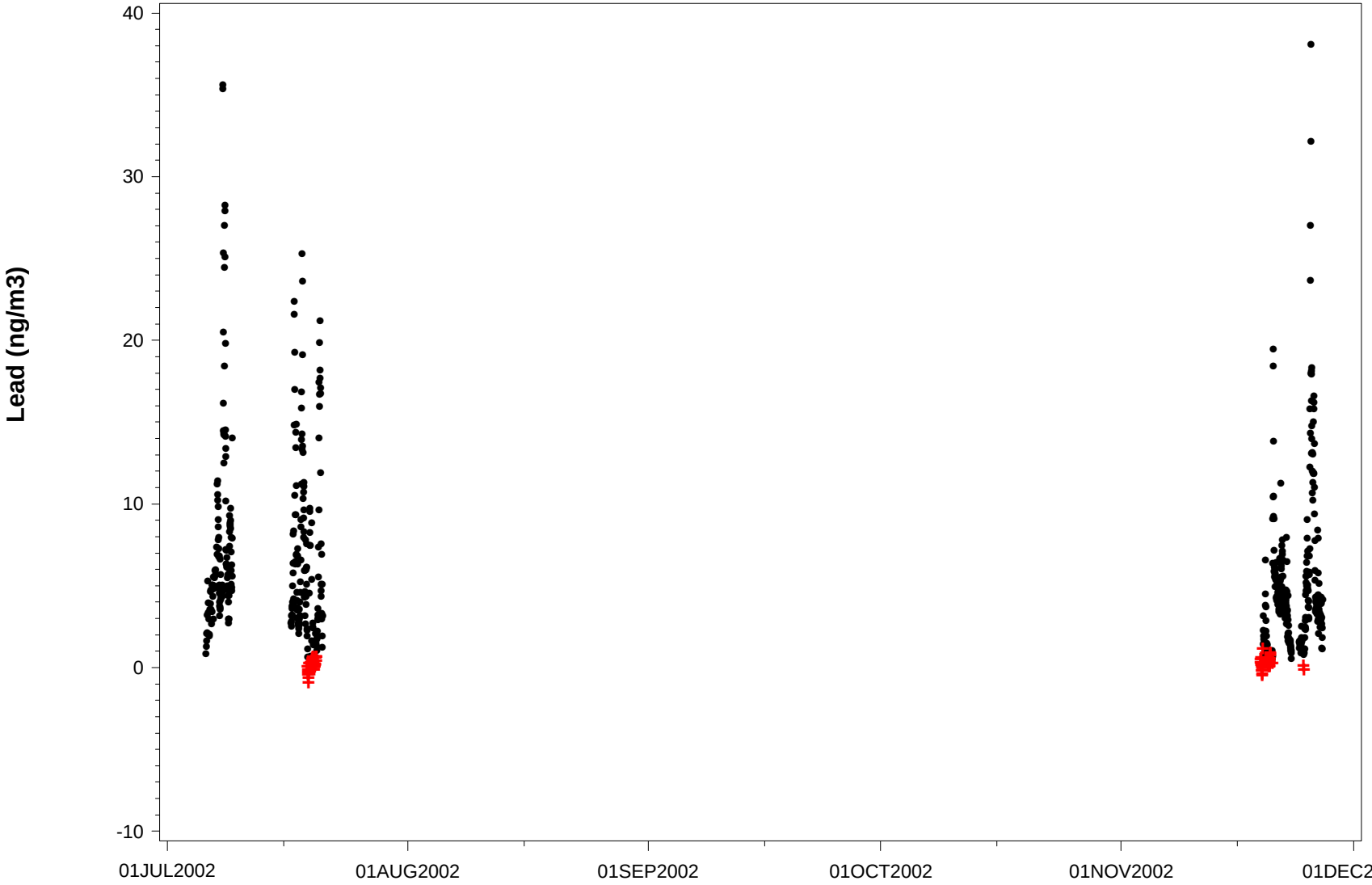
File Name: NARSTO_EPA_SS_BALTIMORE_PONCA_SEAS_PM25_MET_SLV1

NARSTO Time Series Plot

19AUG2007

Site ID: **BMSSUSMDBPON** Variable name: **Lead** Units: **ng/m3** Basis: **S/N121** Sampling interval: **30 minute** Sampling frequency: **Same as sampling interval**
CAS ID: **C7439-92-1** Observation type: **Particles** Particle diameter--lower bound (UM): **0.05** Particle diameter--upper bound (UM): **2.1**
Field sampling or measurement principle: **SEAS** Medium: **Slurry** Inlet type: **Impactor** Laboratory analytical method: **GFAAZ**
Sample preparation: **Acidified/sonicated** Blank Correction: **Blank corrected** Volume standardization: **Ambient temperature and pressure**
Sampling Height above ground (m): **5** Instrument name and model number: **SEAS-II** Measurement principal investigator: **Ondov, Prof. J. M.**
Detection Limit: **0.31**

Site Name:**Baltimore Ponca St., Maryland** Latitude:**39.2891 deg.** Longitude:**-76.5546 deg.** Start Date:**2002-02-14** End Date:**2002-09-23**



Statistics
Number of obs: **649**
Number of missing: **2**
Minimum: **-1.02**
25th Percentile: **1.91**
Median: **4.2**
Mean: **5.636**
75th Percentile: **6.9**
Maximum: **38.08**
Stnd Dev.: **5.662**

NARSTO Flags

Flag Symbol Count

M1: **2**
V0: **579**
V1: **68**

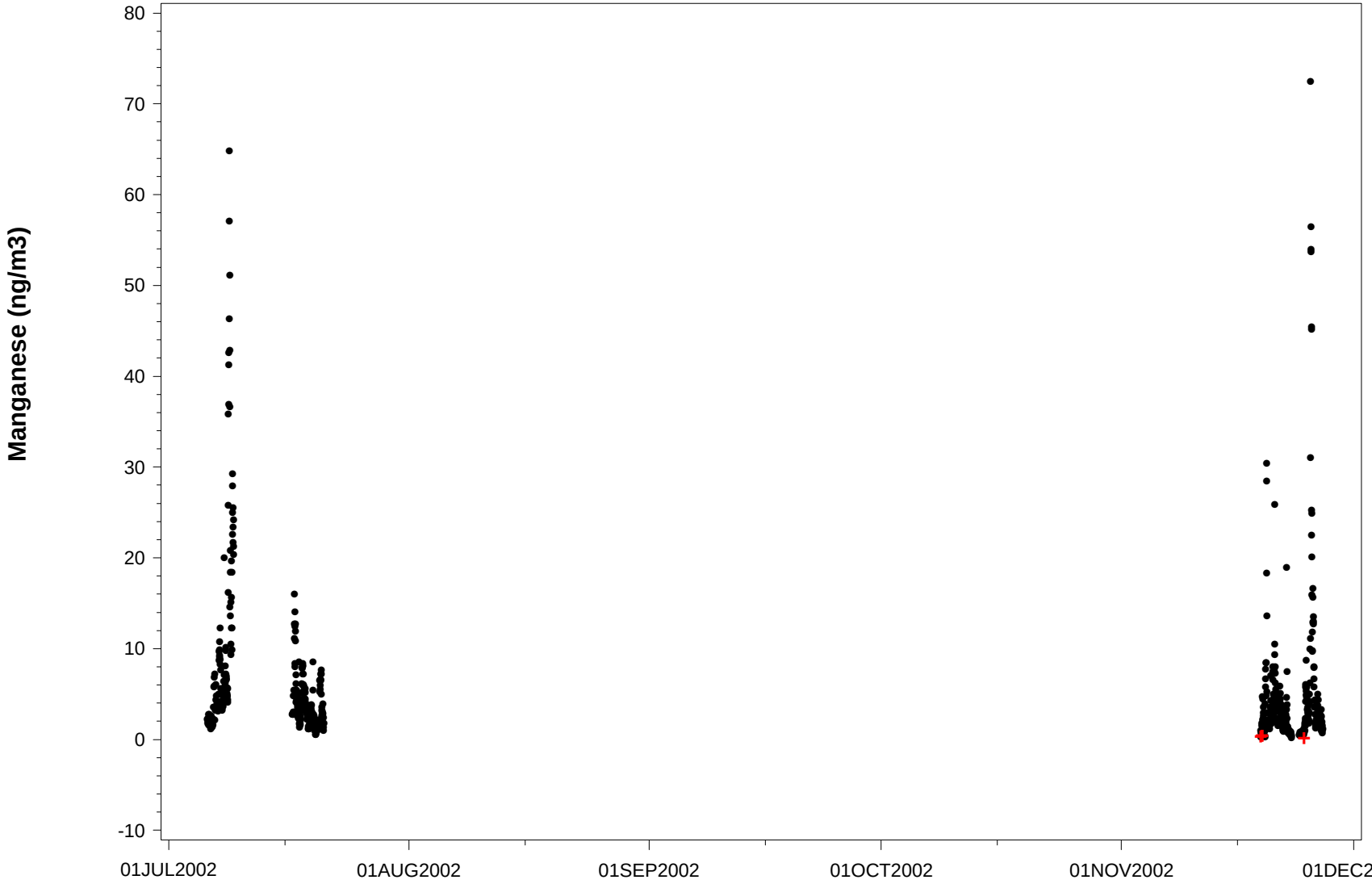
Time Zone: EST

File Name: NARSTO_EPA_SS_BALTIMORE_PONCA_SEAS_PM25_METALS_V1

NARSTO Time Series Plot 19AUG2007

Site ID: **BMSSUSMDBPON** Variable name: **Manganese** Units: **ng/m3** Basis: **S/N121** Sampling interval: **30 minute**
Sampling frequency: **Same as sampling interval** CAS ID: **C7439-96-5** Observation type: **Particles** Particle diameter--lower bound (UM): **0.05**
Particle diameter--upper bound (UM): **2.1** Field sampling or measurement principle: **SEAS** Medium: **Slurry** Inlet type: **Impactor**
Laboratory analytical method: **GFAAZ** Sample preparation: **Acidified/sonicated** Blank Correction: **Blank corrected**
Volume standardization: **Ambient temperature and pressure** Sampling Height above ground (m): **5** Instrument name and model number: **SEAS-II**
Measurement principal investigator: **Ondov, Prof. J. M.** Detection Limit: **0.14**

Site Name:**Baltimore Ponca St., Maryland** Latitude:**39.2891 deg.** Longitude:**-76.5546 deg.** Start Date:**2002-02-14** End Date:**2002-09-23**



Statistics
Number of obs: **649**
Number of missing: **2**
Minimum: **-0.04**
25th Percentile: **1.67**
Median: **3.06**
Mean: **5.622**
75th Percentile: **5.54**
Maximum: **72.5**
Stnd Dev.: **8.630**

NARSTO Flags

Flag Symbol	Count
M1:	**2**
V0: ●	**643**
V1: +	**4**

Time Zone: EST

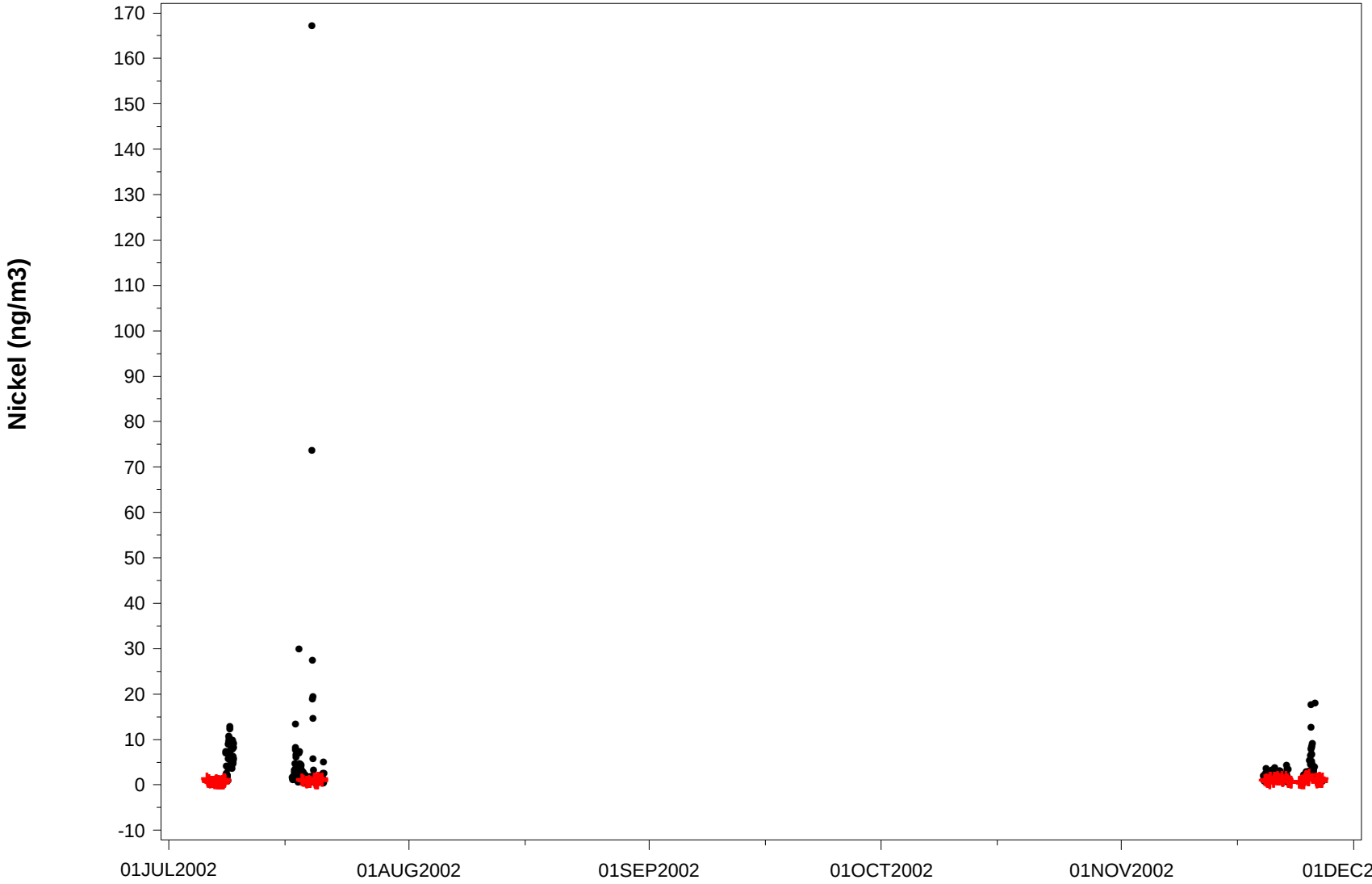
File Name: NARSTO_EPA_SS_BALTIMORE_PONCA_SEAS_PM25_MET_MLY_V1

NARSTO Time Series Plot

19AUG2007

Site ID: **BMSSUSMDBPON** Variable name: **Nickel** Units: **ng/m3** Basis: **S/N121** Sampling interval: **30 minute** Sampling frequency: **Same as sampling interval**
CAS ID: **C7440-02-0** Observation type: **Particles** Particle diameter--lower bound (UM): **0.05** Particle diameter--upper bound (UM): **2.1**
Field sampling or measurement principle: **SEAS** Medium: **Slurry** Inlet type: **Impactor** Laboratory analytical method: **GFAAZ**
Sample preparation: **Acidified/sonicated** Blank Correction: **Blank corrected** Volume standardization: **Ambient temperature and pressure**
Sampling Height above ground (m): **5** Instrument name and model number: **SEAS-II** Measurement principal investigator: **Ondov, Prof. J. M.**
Detection Limit: **0.18**

Site Name:**Baltimore Ponca St., Maryland** Latitude:**39.2891 deg.** Longitude:**-76.5546 deg.** Start Date:**2002-02-14** End Date:**2002-09-23**



Statistics

Number of obs: **649**
Number of missing: **19**
Minimum: **-0.15**
25th Percentile: **0.43**
Median: **1.04**
Mean: **2.303**
75th Percentile: **2.01**
Maximum: **167.22**
Stnd Dev.: **7.768**

NARSTO Flags

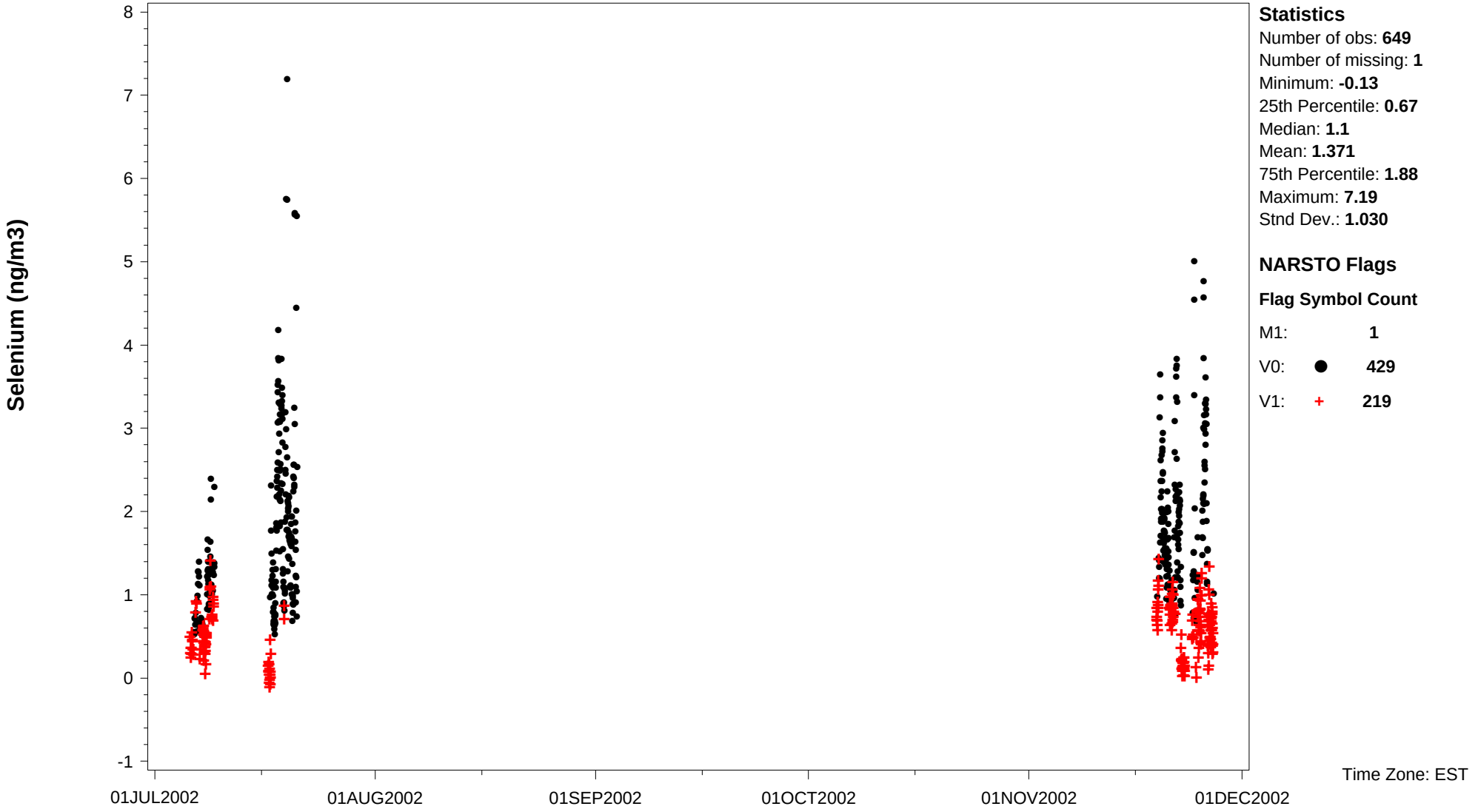
Flag Symbol		Count
M1:		**5**
M2:		**14**
V0:	●	**338**
V1:	+	**292**

Time Zone: EST

NARSTO Time Series Plot 19AUG2007

Site ID: **BMSSUSMDBPON** Variable name: **Selenium** Units: **ng/m3** Basis: **S/N121** Sampling interval: **30 minute**
Sampling frequency: **Same as sampling interval** CAS ID: **C7782-49-2** Observation type: **Particles** Particle diameter--lower bound (UM): **0.05**
Particle diameter--upper bound (UM): **2.1** Field sampling or measurement principle: **SEAS** Medium: **Slurry** Inlet type: **Impactor**
Laboratory analytical method: **GFAAZ** Sample preparation: **Acidified/sonicated** Blank Correction: **Blank corrected**
Volume standardization: **Ambient temperature and pressure** Sampling Height above ground (m): **5** Instrument name and model number: **SEAS-II**
Measurement principal investigator: **Ondov, Prof. J. M.** Detection Limit: **0.02**

Site Name:**Baltimore Ponca St., Maryland** Latitude:**39.2891 deg.** Longitude:**-76.5546 deg.** Start Date:**2002-02-14** End Date:**2002-09-23**



Statistics
Number of obs: **649**
Number of missing: **1**
Minimum: **-0.13**
25th Percentile: **0.67**
Median: **1.1**
Mean: **1.371**
75th Percentile: **1.88**
Maximum: **7.19**
Stnd Dev.: **1.030**

NARSTO Flags

Flag Symbol	Count
M1:	**1**
V0: ●	**429**
V1: +	**219**

Time Zone: EST

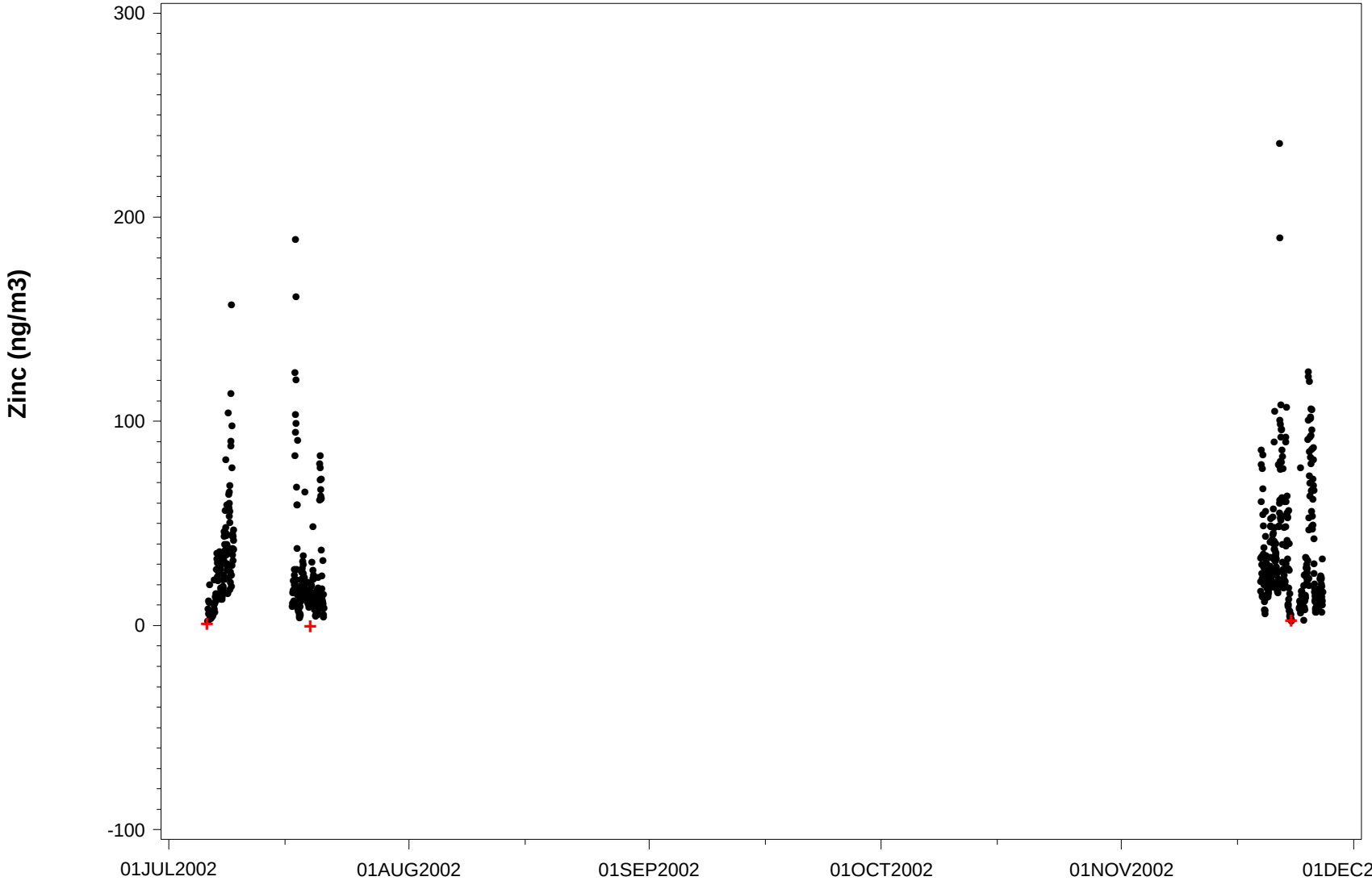
File Name: NARSTO_EPA_SS_BALTIMORE_PONCA_SEAS_PM25_METALS_V1

NARSTO Time Series Plot

19AUG2007

Site ID: **BMSSUSMDBPON** Variable name: **Zinc** Units: **ng/m3** Basis: **S/N121** Sampling interval: **30 minute** Sampling frequency: **Same as sampling interval**
CAS ID: **C7440-66-6** Observation type: **Particles** Particle diameter--lower bound (UM): **0.05** Particle diameter--upper bound (UM): **2.1**
Field sampling or measurement principle: **SEAS** Medium: **Slurry** Inlet type: **Impactor** Laboratory analytical method: **GFAAZ**
Sample preparation: **Acidified/sonicated** Blank Correction: **Blank corrected** Volume standardization: **Ambient temperature and pressure**
Sampling Height above ground (m): **5** Instrument name and model number: **SEAS-II** Measurement principal investigator: **Ondov, Prof. J. M.**
Detection Limit: **7.15**

Site Name:**Baltimore Ponca St., Maryland** Latitude:**39.2891 deg.** Longitude:**-76.5546 deg.** Start Date:**2002-02-14** End Date:**2002-09-23**



Statistics
Number of obs: **649**
Number of missing: **3**
Minimum: **-1.4**
25th Percentile: **12.84**
Median: **21.275**
Mean: **31.442**
75th Percentile: **38.05**
Maximum: **235.91**
Stnd Dev.: **29.004**

NARSTO Flags

Flag Symbol Count

M1: **3**
V0: **643**
V1: **3**

Time Zone: EST

File Name: NARSTO_EPA_SS_BALTIMORE_PONCA_SEAS_PM25_MET_SLV1